


Acronyms & Abbreviations



Acronyms & Abbreviations

In this Environmental Impact Statement (EIS), the U.S. Department of Energy (DOE) has tried to limit the use of acronyms and abbreviations. The few acronyms used in the main body of this EIS (Chapters 1 through 6) are defined in Section AA.1 below. Some acronyms and abbreviations are used only in tables and figures because of space constraints. These table and figure acronyms are defined at the bottom of each table or figure unless already defined in the text. Acronyms used in appendixes appear in lists within those appendixes.

This EIS cites numerous laws, regulations, and Federal Register notices. Section AA.2 presents the standard notation for such resources. DOE attempted not to use numbers that imply a greater level of precision in calculation than is possible. Therefore, Sections **AA.3** and **AA.4** discuss the use of significant digits and the meaning of scientific notation. To help readers understand the technical material presented in this document, Section AA.5 discusses the selection and definition of the units of measure.

AA.1 Document-wide Acronyms and Abbreviations

AMWTP EIS	<i>Advanced Mixed Waste Treatment Project EIS</i>
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSSF	Calcined Solids Storage Facilities
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy-Idaho Operations Office
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ERPG	Emergency Response Planning Guideline
HEPA	high-efficiency particulate air
HLW	high-level waste
ICPP	Idaho Chemical Processing Plant (now INTEC)
INEEL	Idaho National Engineering and Environmental Laboratory (formerly INEL)
INEL	Idaho National Engineering Laboratory (now INEEL)
INTEC	Idaho Nuclear Technology and Engineering Center (formerly ICPP)
LCF	latent cancer fatality
MTHM	metric tons of heavy metal
NEPA	<i>National Environmental Policy Act</i>
NGLW	<i>newly generated liquid waste</i>
NRC	U.S. Nuclear Regulatory Commission
RCRA	Resource Conservation and Recovery Act
SBW	sodium-bearing waste
SNF & INEL EIS	<i>U.S. Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs EIS</i>
TWRS EIS	<i>Tank Waste Remediation System EIS</i>
Yucca Mountain EIS	<i>EIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada</i>

AA.2 Citations for Laws and Regulations

This EIS uses accepted abbreviations for referencing the United States Code, the Code of Federal Regulations, and the Federal Register.

United States Code (USC)

The format for United States Code is xx USC yyyy, where xx represents the title and yyyy represents the section. For example, the Atomic Energy Act can be found at 42 USC 2011, et seq. The Latin phrase, *et seq.* (*et sequentes*) literally means “and the following.” *Et seq.* can be interpreted to mean “and the subsequent sections.”

Code of Federal Regulations (CFR)

The format for the Code of Federal Regulation is xx CFR yyy, where xx represents the title and yyy represents the part. For example, the U.S. Nuclear Regulatory Commission regulations on high-level waste can be found at 10 CFR 60.

Federal Register (FR)

The format for the Federal Register is xx FR yyyy, where xx is the volume number and yyyy is the page number. For example, the U.S. Nuclear Regulatory Commission’s denial of petition for rulemaking on incidental waste is found at 58 FR 12342.

AA.3 Significant Figures

When DOE calculates numbers in this document, two significant digits are used to report the results. When DOE uses accurate values for measuring things, all significant digits are used. Rounding off numbers *sometimes makes* it appear that the totals of a column of figures are inaccurate because they are inexact, but the slight *variation* is due to the rounding of the values.

AA.4 Scientific Notation

Very small and very large numbers are sometimes written using a shorthand method known as “scientific notation.” Scientific notation indicates how many “tens” must be multiplied to make up a number. For example, the number of “tens” in 100 can be expressed as 10×10 and in scientific notation this is written using a positive exponent of 2 or as 10^2 . Similarly, very small numbers (less than 1) are written using a negative exponent, so that $1/100$ or $1/(10 \times 10)$ is written as 10^{-2} .

The shorthand method of scientific notation is particularly useful where expressing numbers above a million. Such large numbers are written as a decimal between 1 and 10 multiplied by the appropriate power of 10. Thus: 1,490,000 is written as 1.49×10^6 where 10^6 represents one million. Similarly, 1,490,000,000 is written as 1.49×10^9 where 10^9 represents one billion.

In this document, numbers equal to or greater than 1,000 or equal to or smaller than 0.001 are expressed in scientific notation (1×10^3 and 1×10^{-3} , respectively).

AA.5 Units of Measure

This EIS uses both English and metric units of measurement. English units, such as inches, feet, miles, and acres are used throughout the document because the public is familiar with these units. However, scientific disciplines typically use metric units for reporting data and other measurement information. For example, concentrations of contaminants in air or water are commonly presented in metric units, such as milligrams per liter (mg/L). Since environmental regulatory standards also use metric units, it is necessary for compliance reporting to maintain consistency for comparison purposes. The following conversion table indicates how the two systems of units of measurements compare.

Metric Conversion Chart

To convert into metric			To convert out of metric		
If you know	Multiply by	To get	If you know	Multiply by	To get
Length					
inches	2.54	centimeters	centimeters	0.3937	inches
feet	30.48	centimeters	centimeters	0.0328	feet
feet	0.3048	meters	meters	3.281	feet
yards	0.9144	meters	meters	1.0936	yards
miles	1.60934	kilometers	kilometers	0.6214	miles
Area					
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.092903	square meters	square meters	10.7639	square feet
square yards	0.8361	square meters	square meters	1.196	square yards
acres	0.0040469	square kilometers	square kilometers	247.1	acres
square miles	2.58999	square kilometers	square kilometers	0.3861	square miles
Volume					
fluid ounces	29.574	milliliters	milliliters	0.0338	fluid ounces
gallons	3.7854	liters	liters	0.26417	gallons
cubic feet	0.028317	cubic meters	cubic meters	35.315	cubic feet
cubic yards	0.76455	cubic meters	cubic meters	1.308	cubic yards
Weight					
ounces	28.3495	grams	grams	0.03527	ounces
pounds	0.4536	kilograms	kilograms	2.2046	pounds
short tons	0.90718	metric tons	metric tons	1.1023	short tons
Temperature					
Fahrenheit	Subtract 32 then multiply by 5/9ths	Celsius	Celsius	Multiply by 9/5ths, then add 32	Fahrenheit

Metric Prefixes

Prefix	Symbol	Scientific Notation	Prefix	Symbol	Scientific Notation
exa-	E	1 000 000 000 000 000 000 = 10 ¹⁸	atto-	a	0.000 000 000 000 000 001 = 10 ⁻¹⁸
peta-	P	1 000 000 000 000 000 = 10 ¹⁵	femto-	f	0.000 000 000 000 001 = 10 ⁻¹⁵
tera-	T	1 000 000 000 000 = 10 ¹²	pico-	p	0.000 000 000 001 = 10 ⁻¹²
giga-	G	1 000 000 000 = 10 ⁹	nano-	n	0.000 000 001 = 10 ⁻⁹
mega-	M	1 000 000 = 10 ⁶	micro-	μ	0.000 001 = 10 ⁻⁶
kilo-	k	1 000 = 10 ³	milli	m	0.001 = 10 ⁻³